

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	52311	Mo near25 v	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/08/11 06:06
L3	27957	L1 near25 (Te or Sb or Nb)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/08/11 07:02
L4	4371	I3 Near25 O	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/08/11 07:59
L5	25996	L1 near25 (Te or Nb)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/08/11 06:09
L6	4030	L5 Near25 O	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/08/11 06:09
L7	42436	("562").CLAS.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/08/11 06:09
L8	99	I6 and I7	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/08/11 06:10
L11	232	562/549.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/08/11 06:13
L12	25	I8 and I11	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/08/11 06:12
L13	184	562/547.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/08/11 06:13
L14	28	I8 and I13	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/08/11 06:56
L15	6	US-5281745-\$.DID. OR US-5380933-\$. DID. OR US-6043185-\$.DID.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/08/11 06:56

L16	2545	L1 near25 (Te)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/08/11 07:02
L17	1239	L16 near25 (Zn)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/08/11 07:05
L18	5	I13 and I17	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/08/11 07:03
L19	1105	L16 near25 (Au)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/08/11 07:17
L20	2	I13 and I19	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/08/11 07:05
L21	1331	L16 near25 (Pb)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/08/11 07:17
L22	397	I11 or I13	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/08/11 07:17
L23	5	I21 and I22	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/08/11 07:52
L24	2	"3236782".PN.	USPAT; USOCR	OR	ON	2005/08/11 07:21
L25	1	"5191116".PN.	USPAT; USOCR	OR	ON	2005/08/11 07:22
L26	1	"5210293".PN.	USPAT; USOCR	OR	ON	2005/08/11 07:23
L27	1	"5371306".PN.	USPAT; USOCR	OR	ON	2005/08/11 07:23
L28	1	"5281745".PN.	USPAT; USOCR	OR	ON	2005/08/11 07:23
L29	1	"5371306".PN.	USPAT; USOCR	OR	ON	2005/08/11 07:24
L30	1	"5380933".PN.	USPAT; USOCR	OR	ON	2005/08/11 07:24

L31	2	"2001342169"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/08/11 07:53
L32	10	((((acrylic or methacrylic) and l4)and (propane or isobutane or alkene)).clm.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/08/11 08:02
L33	7	((((acrylic or methacrylic) and l4)and (propane or isobutane or alkene)).clm.	US-PGPUB	OR	ON	2005/08/11 08:24
L34	0	"6746983".pn.	US-PGPUB	OR	ON	2005/08/11 08:24
L35	2	("6746983").PN.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/08/11 08:25

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:SSSPTA1623PAZ

PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

* * * * * Welcome to STN International * * * * *

NEWS	1		Web Page URLs for STN Seminar Schedule - N. America
NEWS	2		"Ask CAS" for self-help around the clock
NEWS	3	FEB 28	PATDPAFULL - New display fields provide for legal status data from INPADOC
NEWS	4	FEB 28	BABS - Current-awareness alerts (SDIs) available
NEWS	5	MAR 02	GBFULL: New full-text patent database on STN
NEWS	6	MAR 03	REGISTRY/ZREGISTRY - Sequence annotations enhanced
NEWS	7	MAR 03	MEDLINE file segment of TOXCENTER reloaded
NEWS	8	MAR 22	KOREAPAT now updated monthly; patent information enhanced
NEWS	9	MAR 22	Original IDE display format returns to REGISTRY/ZREGISTRY
NEWS	10	MAR 22	PATDPASPC - New patent database available
NEWS	11	MAR 22	REGISTRY/ZREGISTRY enhanced with experimental property tags
NEWS	12	APR 04	EPFULL enhanced with additional patent information and new fields
NEWS	13	APR 04	EMBASE - Database reloaded and enhanced
NEWS	14	APR 18	New CAS Information Use Policies available online
NEWS	15	APR 25	Patent searching, including current-awareness alerts (SDIs), based on application date in CA/CAPLUS and USPATFULL/USPAT2 may be affected by a change in filing date for U.S. applications.
NEWS	16	APR 28	Improved searching of U.S. Patent Classifications for U.S. patent records in CA/CAPLUS
NEWS	17	MAY 23	GBFULL enhanced with patent drawing images
NEWS	18	MAY 23	REGISTRY has been enhanced with source information from CHEMCATS
NEWS	19	JUN 06	The Analysis Edition of STN Express with Discover! (Version 8.0 for Windows) now available
NEWS	20	JUN 13	RUSSIAPAT: New full-text patent database on STN
NEWS	21	JUN 13	FRFULL enhanced with patent drawing images
NEWS	22	JUN 27	MARPAT displays enhanced with expanded G-group definitions and text labels
NEWS	23	JUL 01	MEDICONF removed from STN
NEWS	24	JUL 07	STN Patent Forums to be held in July 2005
NEWS	25	JUL 13	SCISEARCH reloaded
NEWS	26	JUL 20	Powerful new interactive analysis and visualization software, STN AnaVist, now available
NEWS EXPRESS			JUNE 13 CURRENT WINDOWS VERSION IS V8.0, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 13 JUNE 2005
NEWS HOURS			STN Operating Hours Plus Help Desk Availability
NEWS INTER			General Internet Information
NEWS LOGIN			Welcome Banner and News Items
NEWS PHONE			Direct Dial and Telecommunication Network Access to STN
NEWS WWW			CAS World Wide Web Site (general information)

Enter NEWS followed by the item number or name to see news on that specific topic.

All use of STN is subject to the provisions of the STN Customer agreement. Please note that this agreement limits use to scientific research. Use for software development or design or implementation of commercial gateways or other similar uses is prohibited and may result in loss of user privileges and other penalties.

* * * * * STN Columbus * * * * *

*NLDB - Newsletter Database from 1988 - present

* The files listed above are temporarily unavailable.

FILE 'HOME' ENTERED AT 07:29:32 ON 11 AUG 2005

=> e caplus

THIS COMMAND NOT AVAILABLE IN THE CURRENT FILE

The EXPAND command is used to look at the index in a file which has an index. This file does not have an index.

=> file caplus

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

0.21

0.21

FILE 'CAPLUS' ENTERED AT 07:29:45 ON 11 AUG 2005

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

COPYRIGHT (C) 2005 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 11 Aug 2005 VOL 143 ISS 7

FILE LAST UPDATED: 10 Aug 2005 (20050810/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> Mo(l)V

469522 MO

46345 MOS

512969 MO

(MO OR MOS)

1041317 V

L1 73968 MO(L)V

=> L1(l) (Te or Sb or Nb)

66710 TE

1743 TES

68224 TE

(TE OR TES)

99316 SB

3931 SBS

103078 SB
 (SB OR SBS)
 117860 NB
 6944 NBS
 124614 NB
 (NB OR NBS)
 L2 23615 L1(L) (TE OR SB OR NB)

 => acrylic or methacrylic
 249008 ACRYLIC
 1304 ACRYLICS
 249378 ACRYLIC
 (ACRYLIC OR ACRYLICS)
 71423 METHACRYLIC
 6 METHACRYLICS
 71427 METHACRYLIC
 (METHACRYLIC OR METHACRYLICS)
 L3 285147 ACRYLIC OR METHACRYLIC

 => l2 and l3
 L4 305 L2 AND L3

 => propane
 76732 PROPANE
 1110 PROPANES
 L5 77305 PROPANE
 (PROPANE OR PROPANES)

 => l4 and l5
 L6 118 L4 AND L5

 => d l6 108-118 ti

 L6 ANSWER 108 OF 118 CAPLUS COPYRIGHT 2005 ACS on STN
 TI Method and catalysts for producing **acrylic** acid from
 propane and gaseous oxygen

 L6 ANSWER 109 OF 118 CAPLUS COPYRIGHT 2005 ACS on STN
 TI Process for simultaneous preparation of acrylonitrile and **acrylic**
 acid

 L6 ANSWER 110 OF 118 CAPLUS COPYRIGHT 2005 ACS on STN
 TI Preparation of catalysts for **acrylic** acid preparation

 L6 ANSWER 111 OF 118 CAPLUS COPYRIGHT 2005 ACS on STN
 TI Preparation of **acrylic** acid from **propane** using mixed
 metal oxide catalysts

 L6 ANSWER 112 OF 118 CAPLUS COPYRIGHT 2005 ACS on STN
 TI Preparation of metal oxide catalysts for oxidation of **propane** at
 gas phase

 L6 ANSWER 113 OF 118 CAPLUS COPYRIGHT 2005 ACS on STN
 TI Preparation of mixed metal oxide catalysts and preparation of
 acrylic acid from **propane** by using the catalysts

 L6 ANSWER 114 OF 118 CAPLUS COPYRIGHT 2005 ACS on STN
 TI One-step preparation of (meth)**acrylic** acid by catalytic
 oxidation of **propane** or isobutane

 L6 ANSWER 115 OF 118 CAPLUS COPYRIGHT 2005 ACS on STN
 TI Novel Catalysts for the Environmentally Friendly Synthesis of Methyl
 Methacrylate

 L6 ANSWER 116 OF 118 CAPLUS COPYRIGHT 2005 ACS on STN

TI Unsaturated carboxylic acid by oxidation of alkane using certain mixed metal oxides.

L6 ANSWER 117 OF 118 CAPLUS COPYRIGHT 2005 ACS on STN

TI Acroleins from propylenes

L6 ANSWER 118 OF 118 CAPLUS COPYRIGHT 2005 ACS on STN

TI Catalysts for oxidation of propylene to acrolein or **acrylic acid**

=> d 16 113-114, 118 ti fbib abs

L6 ANSWER 113 OF 118 CAPLUS COPYRIGHT 2005 ACS on STN

TI Preparation of mixed metal oxide catalysts and preparation of **acrylic acid** from **propane** by using the catalysts

AN 1998:143244 CAPLUS

DN 128:192371

TI Preparation of mixed metal oxide catalysts and preparation of **acrylic acid** from **propane** by using the catalysts

IN Ushikubo, Takashi; Kinoshita, Hisao; Watanabe, Akira

PA Mitsubishi Chemical Industries Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	JP 10057813	A2	19980303	JP 1996-221139	19960822
				JP 1996-221139	19960822

AB The title catalysts are prepared by drying solns. or slurries containing **Mo**, **V**, and **Te** and/or **Sb**, heating under substantially O-free atmospheric, then heating under O-containing gas. **Acrylic acid** is prepared by gas-phase oxidation of **propane** by using the catalysts. A gaseous mixture of **propane**, air, and steam was introduced to a fixed bed reactor filled with a catalyst prepared by heating $\text{Mo}_1\text{V}_0.3\text{Te}_0.23\text{Nb}_0.12\text{O}_n$, then treated at 380° for 2 h to give 52.5% **acrylic acid**.

L6 ANSWER 114 OF 118 CAPLUS COPYRIGHT 2005 ACS on STN

TI One-step preparation of (meth)**acrylic acid** by catalytic oxidation of **propane** or isobutane

AN 1997:784172 CAPLUS

DN 128:48601

TI One-step preparation of (meth)**acrylic acid** by catalytic oxidation of **propane** or isobutane

IN To, Shinrin; Takahashi, Mamoru; Ishii, Masakazu

PA Toa Gosei Chemical Industry Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 4 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	JP 09316023	A2	19971209	JP 1996-153465	19960524
				JP 1996-153465	19960524

AB **Propane** or isobutane is catalytically oxidized in gas phase in the presence of catalysts containing **Mo**, **Sb**, **V**, **O**, and **A** (**A** represents ≥ 1 elements selected from **Nb**, **Ta**, **Sn**, **W**, **Ti**, **Ni**, **Fe**, **Cr**, and **Co**) to give (meta)**acrylic acids**. Oxidation of **propane** with O_2 at 400° for 10 h in the presence of a catalyst prepared from ammonium metavanadate, antimony oxide, ammonium molybdate, and niobic acid gave **acrylic acid** (**I**) in high yield with conversion 30.9% and **I** selectivity 29.5%.

L6 ANSWER 118 OF 118 CAPLUS COPYRIGHT 2005 ACS on STN
 TI Catalysts for oxidation of propylene to acrolein or **acrylic acid**
 AN 1969:449291 CAPLUS
 DN 71:49291
 TI Catalysts for oxidation of propylene to acrolein or **acrylic acid**
 IN Kashiwabara, Hideyuki; Nakamura, Yasushi
 PA Asahi Electro-Chemical Co., Ltd.
 SO Jpn. Tokkyo Koho, 8 pp.
 CODEN: JAXXAD
 DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 43024645	B4	19681024	JP	19660418
AB	<p>In manufacturing acrolein (I) or acrylic acid (II) or a mixture of I and II by catalytic reaction in gaseous propylene (III) and O, catalytic systems containing Mo, V, W, Te, Sb, Sn, or Bi, with O, were used. In an example, a solution of 72.0 parts MoO₃ and 40.2 parts H₂WO₄.H₂O in NH₄OH, an aqueous solution of 11.7 parts NH₄VO₃, a solution of 70.1 parts SnCl₄.5H₂O in aqueous HCl and a solution of 3.2 parts Te in HNO₃ were mixed and gradually evaporated to dryness with stirring vigorously on the water bath. The catalyst (between 6-20 mesh in a quartz tube) was heated in air stream at .apprx.470° 4 hrs. and at 358-470° for .apprx.2 hrs., then in O stream at 150-358° 3 hrs. to yield a catalytic mixture (IV): atomic ratio given, Mo-V-W-Te-Sn 5:1:1.5:0.5:2. A mixture of crude III (93% III, main impurities: propane, ethane), O and steam (mole ratio, III-O-H₂O 1:1.6:6) was introduced into a stainless-steel tube filled with IV at 450° under the atmospheric pressure at apparent contact time of 3 sec. to yield II containing I, AcOH, and AcH yielded II; % conversion III-II = 66.5%.</p>				

=> Nb

117860 NB
 6944 NBS

L7 124614 NB
 (NB OR NBS)

=> l6 not l7

L8 28 L6 NOT L7

=> d 18 18-28 ti

L8 ANSWER 18 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN
 TI Production method of (meth)**acrylic acid** using mixed metal oxidation catalysts

L8 ANSWER 19 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN
 TI Method for producing **acrylic acid** by the heterogeneously catalyzed gas-phase oxidation of **propane**

L8 ANSWER 20 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN
 TI Manufacture of metal oxide catalyst containing **Mo**, **V**, and **Sb**

L8 ANSWER 21 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN
 TI Manufacture of acrylonitrile and/or of **acrylic acid** with mixed metal oxide catalysts from **propane** with low sulfur content

L8 ANSWER 22 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN
 TI Catalytic performance of hydrothermally synthesized **Mo**-**V**-**M**-O (M = **Sb** or **Te**) oxides in the selective oxidation

of light paraffins

L8 ANSWER 23 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN
TI Catalytic oxidative activation of light alkanes over Mo-V-based oxides having controlled surface

L8 ANSWER 24 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN
TI Selective oxidation of light alkanes over hydrothermally synthesized Mo-V-M-O (M = Al, Ga, Bi, Sb, and Te) oxide catalysts

L8 ANSWER 25 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN
TI Process for simultaneous preparation of acrylonitrile and acrylic acid

L8 ANSWER 26 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN
TI Preparation of mixed metal oxide catalysts and preparation of acrylic acid from propane by using the catalysts

L8 ANSWER 27 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN
TI Acroleins from propylenes

L8 ANSWER 28 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN
TI Catalysts for oxidation of propylene to acrolein or acrylic acid

=> d 18 18-24,26,28 ti fbib abs

L8 ANSWER 18 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN
TI Production method of (meth)acrylic acid using mixed metal oxidation catalysts

AN 2002:235898 CAPLUS

DN 136:263583

TI Production method of (meth)acrylic acid using mixed metal oxidation catalysts

IN Ueda, Wataru

PA Mitsubishi Rayon Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2002088012	A2	20020327	JP 2000-276096	20000912
				JP 2000-276096	20000912

AB Disclosed is production methods of (meth)acrylic acid by oxidizing propane or isobutane in gas-phase in the presence of an oxidation catalyst having general formula MoaVbTecFedMeOx, wherein Mo = molybdenum, V = vanadium, Te = tellurium, Fe = iron, M = at least one element selected from chromium, manganese, cobalt, nickel, aluminum, titanium, tin, bismuth, cerium, and tungsten, O = oxygen, a,b,c,d,e,x = atomic ratio.

L8 ANSWER 19 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN

TI Method for producing acrylic acid by the heterogeneously catalyzed gas-phase oxidation of propane

AN 2002:72014 CAPLUS

DN 136:118851

TI Method for producing acrylic acid by the heterogeneously catalyzed gas-phase oxidation of propane

IN Borgmeier, Frieder; Tenten, Andreas; Hibst, Hartmut; Mueller-Engel, Klaus Joachim; Unverricht, Signe; Cox, Gerhard

PA Basf Aktiengesellschaft, Germany

SO PCT Int. Appl., 34 pp.

CODEN: PIXXD2

DT Patent
LA German
FAN.CNT 5

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002006199	A2	20020124	WO 2001-EP8178	20010716
	WO 2002006199	A3	20020523		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
				DE 2000-10034825	A 20000718
				DE 2000-10046672	A 20000920
				DE 2001-10118814	A 20010417
				DE 2001-10119933	A 20010423
	DE 10034825	A1	20020131	DE 2000-10034825	20000718
	DE 10046672	A1	20020328	DE 2000-10046672	20000920
	DE 10118814	A1	20021024	DE 2001-10118814	20010417
	DE 10119933	A1	20021024	DE 2001-10119933	20010423
	EP 1301457	A2	20030416	EP 2001-967180	20010716
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
				DE 2000-10034825	A 20000718
				DE 2000-10046672	A 20000920
				DE 2001-10118814	A 20010417
				DE 2001-10119933	A 20010423
				WO 2001-EP8178	W 20010716
	BR 2001012557	A	20030722	BR 2001-12557	20010716
				DE 2000-10034825	A 20000718
				DE 2000-10046672	A 20000920
				DE 2001-10118814	A 20010417
				DE 2001-10119933	A 20010423
				WO 2001-EP8178	W 20010716
	JP 2004504288	T2	20040212	JP 2002-512106	20010716
				DE 2000-10034825	A 20000718
				DE 2000-10046672	A 20000920
				DE 2001-10118814	A 20010417
				DE 2001-10119933	A 20010423
				WO 2001-EP8178	W 20010716
	US 2003187298	A1	20031002	US 2003-333060	20030116
	US 6867328	B2	20050315		
				DE 2000-10034825	A 20000718
				DE 2000-10046672	A 20000920
				DE 2001-10118814	A 20010417
				DE 2001-10119933	A 20010423
				WO 2001-EP8178	W 20010716
	US 2004102648	A1	20040527	US 2003-399039	20030417
				WO 2001-EP11909	W 20011016

PATENT FAMILY INFORMATION:

FAN 2001:923733

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001096270	A2	20011220	WO 2001-EP6528	20010608
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

			DE 2000-10028582	A	20000614
DE 10028582	A1	20011220	DE 2000-10028582		20000614
AU 2001081823	A5	20011224	AU 2001-81823		20010608
			DE 2000-10028582	A	20000614
EP 1289920	A2	20030312	WO 2001-EP6528	W	20010608
EP 1289920	B1	20040915	EP 2001-960291		20010608

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
IE, SI, LT, LV, FI, RO, MK, CY, AL, TR

			DE 2000-10028582	A	20000614
			WO 2001-EP6528	W	20010608
BR 2001011607	A	20030701	BR 2001-11607		20010608
			DE 2000-10028582	A	20000614
			WO 2001-EP6528	W	20010608
JP 2004503516	T2	20040205	JP 2002-510416		20010608
			DE 2000-10028582	A	20000614
			WO 2001-EP6528	W	20010608
AT 276224	E	20041015	AT 2001-960291		20010608
			DE 2000-10028582	A	20000614
			WO 2001-EP6528	W	20010608
ES 2228925	T3	20050416	ES 2001-1960291		20010608
			DE 2000-10028582	A	20000614
US 2003181762	A1	20030925	US 2002-297602		20021213
US 6781017	B2	20040824			
			DE 2000-10028582	A	20000614
			WO 2001-EP6528	W	20010608
US 2004102648	A1	20040527	US 2003-399039		20030417
			WO 2001-EP11909	W	20011016

FAN 2001:923734

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001096271	A2	20011220	WO 2001-EP6708	20010613
WO 2001096271	A3	20020502		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,			
	CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,			
	GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,			
	LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT,			
	RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US,			
	UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,			
	DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,			
	BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			

			DE 2000-10028582	A	20000614
			DE 2000-10029338	A	20000620
			DE 2000-10033121	A	20000707
			DE 2000-10034825	A	20000718
			DE 2000-10046672	A	20000920
			DE 2000-10051419	A	20001017
			DE 2001-10118814	A	20010417
			DE 2001-10119933	A	20010423
			DE 2001-10121592	A	20010503
			DE 2001-10122027	A	20010507
DE 10028582	A1	20011220	DE 2000-10028582		20000614
DE 10029338	A1	20020103	DE 2000-10029338		20000620
DE 10033121	A1	20020117	DE 2000-10033121		20000707
DE 10034825	A1	20020131	DE 2000-10034825		20000718
DE 10046672	A1	20020328	DE 2000-10046672		20000920
DE 10051419	A1	20020418	DE 2000-10051419		20001017
DE 10118814	A1	20021024	DE 2001-10118814		20010417
DE 10119933	A1	20021024	DE 2001-10119933		20010423
DE 10121592	A1	20020523	DE 2001-10121592		20010503
DE 10122027	A1	20020523	DE 2001-10122027		20010507

AU 2001078449	A5	20011224	AU 2001-78449	20010613
			DE 2000-10028582	A 20000614
			DE 2000-10029338	A 20000620
			DE 2000-10033121	A 20000707
			DE 2000-10034825	A 20000718
			DE 2000-10046672	A 20000920
			DE 2000-10051419	A 20001017
			DE 2001-10118814	A 20010417
			DE 2001-10119933	A 20010423
			DE 2001-10121592	A 20010503
			DE 2001-10122027	A 20010507
			WO 2001-EP6708	W 20010613
EP 1289919	A2	20030312	EP 2001-956472	20010613
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR			DE 2000-10028582	A 20000614
			DE 2000-10029338	A 20000620
			DE 2000-10033121	A 20000707
			DE 2000-10034825	A 20000718
			DE 2000-10046672	A 20000920
			DE 2000-10051419	A 20001017
			DE 2001-10118814	A 20010417
			DE 2001-10119933	A 20010423
			DE 2001-10121592	A 20010503
			DE 2001-10122027	A 20010507
			WO 2001-EP6708	W 20010613
BR 2001011702	A	20031007	BR 2001-11702	20010613
			DE 2000-10028582	A 20000614
			DE 2000-10029338	A 20000620
			DE 2000-10033121	A 20000707
			DE 2000-10034825	A 20000718
			DE 2000-10046672	A 20000920
			DE 2000-10051419	A 20001017
			DE 2001-10118814	A 20010417
			DE 2001-10119933	A 20010423
			DE 2001-10121592	A 20010503
			DE 2001-10122027	A 20010507
			WO 2001-EP6708	W 20010613
JP 2004503517	T2	20040205	JP 2002-510417	20010613
			DE 2000-10028582	A 20000614
			DE 2000-10029338	A 20000620
			DE 2000-10033121	A 20000707
			DE 2000-10034825	A 20000718
			DE 2000-10046672	A 20000920
			DE 2000-10051419	A 20001017
			DE 2001-10118814	A 20010417
			DE 2001-10119933	A 20010423
			DE 2001-10121592	A 20010503
			DE 2001-10122027	A 20010507
			WO 2001-EP6708	W 20010613
WO 2002032571	A1	20020425	WO 2001-EP11909	20011016
WO 2002032571	C2	20031106		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
			DE 2000-10051419	A 20001017
AU 2002024780	A5	20020429	AU 2002-24780	20011016
			DE 2000-10051419	A 20001017
			WO 2001-EP11909	W 20011016

EP 1335793	A1	20030820	EP 2001-987695	20011016
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
			DE 2000-10051419	A 20001017
			WO 2001-EP11909	W 20011016
BR 2001014499	A	20040113	BR 2001-14499	20011016
			DE 2000-10051419	A 20001017
			WO 2001-EP11909	W 20011016
JP 2004516129	T2	20040603	JP 2002-535802	20011016
			DE 2000-10051419	A 20001017
			WO 2001-EP11909	W 20011016
WO 2002090308	A1	20021114	WO 2002-EP4794	20020502
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
			DE 2001-10122027	A 20010507
EP 1387823	A1	20040211	EP 2002-740550	20020502
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
			DE 2001-10122027	A 20010507
			WO 2002-EP4794	W 20020502
CN 1507430	A	20040623	CN 2002-809476	20020502
			DE 2001-10122027	A 20010507
BR 2002009297	A	20040713	BR 2002-9297	20020502
			DE 2001-10122027	A 20010507
			WO 2002-EP4794	W 20020502
JP 2004526800	T2	20040902	JP 2002-587391	20020502
			DE 2001-10122027	A 20010507
			WO 2002-EP4794	W 20020502
US 2003187299	A1	20031002	US 2002-297579	20021212
			DE 2000-10028582	A 20000614
			WO 2001-EP6708	W 20010613
US 2004102648	A1	20040527	US 2003-399039	20030417
			WO 2001-EP11909	W 20011016
US 2004138500	A1	20040715	US 2003-476567	20031104
US 6858754	B2	20050222		
			DE 2001-10122027	A 20010507
			WO 2002-EP4794	W 20020502

FAN 2001:935553

PATENT NO.

KIND

DATE

APPLICATION NO.

DATE

PI

WO 2001098246

A1

20011227

WO 2001-EP6821

20010615

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

DE 2000-10029338 A 20000620

DE 2000-10033121 A 20000707

DE 10029338 A1 20020103

DE 2000-10029338 20000620

DE 10033121 A1 20020117

DE 2000-10033121 20000707

US 2004102648 A1 20040527

US 2003-399039 20030417

WO 2001-EP11909 W 20011016

FAN 2002:814083

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002083615	A1	20021024	WO 2002-EP4073	20020412
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	DE 10118814	A1	20021024	DE 2001-10118814	20010417
	JP 2004525963	T2	20040826	JP 2002-581372	20020412
				DE 2001-10118814	20010417
				WO 2002-EP4073	20020412
	CN 1529689	A	20040915	CN 2002-808346	20020412
				DE 2001-10118814	20010417
	US 2004102648	A1	20040527	US 2003-399039	20030417
				WO 2001-EP11909	20011016
	US 2004082810	A1	20040429	US 2003-474202	20031017
				DE 2001-10118814	20010417
				WO 2002-EP4073	20020412

AB A method for producing **acrylic acid** by the heterogeneously catalyzed gas-phase oxidation of **propane** on a multi-metal oxide mass, which contains the elements **Mo**, **V**, **Te**, and/or **Sb**, and optionally others, and has a specific X-ray diffractogram; X-ray diffractogram are presented.

L8 ANSWER 20 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN
 TI Manufacture of metal oxide catalyst containing **Mo**, **V**, and **Sb**
 AN 2001:910040 CAPLUS
 DN 136:43534
 TI Manufacture of metal oxide catalyst containing **Mo**, **V**, and **Sb**
 IN Takahashi, Mamoru; Tu, Xin Lin; Adzuma, Hiroshi
 PA Toa Gosei Chemical Industry Co., Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 5 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2001347165	A2	20011218	JP 2000-172857	20000609
				JP 2000-172857	20000609
AB	The invention relates to a manufacture of metal oxide catalyst which is used for the production of acrylic acid from propane at high yield. The process comprises effecting a reaction of an Sb(III)-containing compound with an oxidizing agent to oxidize Sb(III) to Sb(V), and adding a V(V)-containing compound and heating to $\leq 70^\circ$ to convert the remaining Sb(III) to Sb(V).				

L8 ANSWER 21 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN
 TI Manufacture of acrylonitrile and/or of **acrylic acid** with mixed metal oxide catalysts from **propane** with low sulfur content
 AN 2001:892150 CAPLUS
 DN 136:38021
 TI Manufacture of acrylonitrile and/or of **acrylic acid** with mixed metal oxide catalysts from **propane** with low sulfur content
 IN Ushikubo, Takashi
 PA Mitsubishi Chemical Corp., Japan

SO Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2001342169	A2	20011211	JP 2000-167076 JP 2000-167076	20000605 20000605

AB H₂C:CHCN and/or H₂C:CHCO₂H are manufactured by gas-phase oxidation of **propane** in the presence of mixed metal oxide catalysts containing **Mo**, **V**, **Te**, and/or **Sb** with controlling S content of gas supplied to a reactor to ≤200 ppm. Thus, a gaseous mixture (containing 0.235 ppm S) of **propane**, NH₃, O, and N was passed through a fixed bed reactor in the presence of Mo₁V_{0.3}Te_{0.16}Nb_{0.12}O_n/SiO₂ over 300 h to show almost no catalyst deactivation.

L8 ANSWER 22 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN

TI Catalytic performance of hydrothermally synthesized **Mo-V** -M-O (M = **Sb** or **Te**) oxides in the selective oxidation of light paraffins

AN 2001:608688 CAPLUS

DN 136:151474

TI Catalytic performance of hydrothermally synthesized **Mo-V** -M-O (M = **Sb** or **Te**) oxides in the selective oxidation of light paraffins

AU Oshihara, Kenzo; Hisano, Tokio; Kayashima, Youhei; Ueda, Wataru

CS Department of Materials Science and Engineering, Science University of Tokyo in Yamaguchi, Yamaguchi, 756-0884, Japan

SO Studies in Surface Science and Catalysis (2001), 136(Natural Gas Conversion VI), 93-98

CODEN: SSCTDM; ISSN: 0167-2991

PB Elsevier Science B.V.

DT Journal

LA English

AB Hydrothermally synthesized Mo₆V₂Sb₁₀O_x and Mo₆V₃Te₁₀O_x mixed oxide catalysts were evaluated for methane, ethane and **propane** oxidation. The catalysts were very active for oxidative dehydrogenation of ethane with 80% ethylene selectivity, nearly independently of reaction temperature (300-400°). Grinding-treatment made the catalyst more selective by suppressing CO_x production. The catalysts were inactive for methane oxidation, but they were highly active for **propane** oxidation to **acrylic acid**.

RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 23 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN

TI Catalytic oxidative activation of light alkanes over **Mo-V**-based oxides having controlled surface

AN 2001:549480 CAPLUS

DN 135:318188

TI Catalytic oxidative activation of light alkanes over **Mo-V**-based oxides having controlled surface

AU Oshihara, Kenzo; Hisano, Tokio; Ueda, Wataru

CS Department of Materials Science and Engineering, Science University of Tokyo in Yamaguchi, Yamaguchi, 765-0884, Japan

SO Topics in Catalysis (2001), 15(2-4), 153-160

CODEN: TOCAFI; ISSN: 1022-5528

PB Kluwer Academic/Plenum Publishers

DT Journal

LA English

OS CASREACT 135:318188

AB An arrangement of catalytically active elements of **Mo**, **V**, and **Te** in an oxide solid with a single crystallog. phase was

successfully done by the hydrothermal synthetic method. A black solid powder with a rod-shape (by SEM) was obtained. This catalyst material was first air-treated at 280° for 2 h, by which Te was stabilized in the structure. The air-treated sample was then heat-treated at 600° in a N stream. It was revealed by XRD anal. that this treatment made the solid in a well-crystallized state. Finally, to break the rods into fine powders, the well-crystallized rod-shaped material was ground, by which a face of the cross-section of the rods seems to be preferentially appeared. Thus obtained catalyst, Mo₆V₃Te₁₀O_x, showed a high activity for the selective oxidation of **propane** to **acrylic acid** at 360°. Since the grinding is the most effectual determinant in the **propane** conversion and the **acrylic acid** formation, the surface on the cross-section part of the rod-shaped crystals is active for the selective oxidation. It was assumed that all the elements of Mo, V, and Te arrange in this surface and effectively promote the consecutive oxidation from **propane** to **acrylic acid** via propene and acrolein.

RE.CNT 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 24 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN
TI Selective oxidation of light alkanes over hydrothermally synthesized
Mo-V-M-O (M = Al, Ga, Bi, Sb, and Te)
) oxide catalysts
AN 2000:564783 CAPLUS
DN 133:335477
TI Selective oxidation of light alkanes over hydrothermally synthesized
Mo-V-M-O (M = Al, Ga, Bi, Sb, and Te)
) oxide catalysts
AU Ueda, W.; Oshihara, K.
CS Department of Materials Science and Engineering, Science University of
Tokyo in Yamaguchi, Yamaguchi, 765-0884, Japan
SO Applied Catalysis, A: General (2000), 200(1-2), 135-143
CODEN: ACAGE4; ISSN: 0926-860X
PB Elsevier Science B.V.
DT Journal
LA English
AB Selective oxidns. of ethane to ethene and acetic acid and of
propane to **acrylic acid** were carried out over
hydrothermally synthesized Mo-V-M-O (M = Al, Ga, Bi,
Sb, and Te) complex metal oxide catalysts. All the
synthesized solids were rod-shaped crystallites and gave a common XRD peak
corresponding to 4.0 Å d-spacing. From the different XRD patterns at low
angle region below 10° and from the different shape of the
cross-section of the rod crystal obtained by SEM, the solids were
classified into two groups: Mo-V-M-O (M = Al, possibly
Ga and Bi) and Mo-V-M-O (M = Sb, and
Te). The former catalyst was moderately active for the ethane
oxidation to ethene and to acetic acid. On the other hand the latter was
found to be extremely active for the oxidative dehydrogenation. The
Mo-V-M-O (M = Sb, and Te) catalysts
were also active for the **propane** oxidation to **acrylic**
acid. It was found that the grinding of the catalysts after
heat-treatment at 600°C in N₂ increased the conversions of
propane and enhanced the selectivity to **acrylic acid**.
Structural arrangement of the catalytic functional components on the
surface of the cross-section of the rod-shaped catalysts seems to be
important for the oxidation activity and selectivity.

RE.CNT 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 26 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN
TI Preparation of mixed metal oxide catalysts and preparation of
acrylic acid from **propane** by using the catalysts
AN 1998:143244 CAPLUS

DN 128:192371
 TI Preparation of mixed metal oxide catalysts and preparation of
acrylic acid from **propane** by using the catalysts
 IN Ushikubo, Takashi; Kinoshita, Hisao; Watanabe, Akira
 PA Mitsubishi Chemical Industries Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 6 pp.
 CODEN: JKXXAF

DT Patent
 LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 10057813	A2	19980303	JP 1996-221139 JP 1996-221139	19960822 19960822

AB The title catalysts are prepared by drying solns. or slurries containing
Mo, **V**, and **Te** and/or **Sb**, heating
 under substantially O-free atmospheric, then heating under O-containing gas.
Acrylic acid is prepared by gas-phase oxidation of **propane** by
 using the catalysts. A gaseous mixture of **propane**, air, and steam
 was introduced to a fixed bed reactor filled with a catalyst prepared by
 heating $\text{Mo}_1\text{V}_0.3\text{Te}_{0.23}\text{Nb}_{0.12}\text{O}_n$, then treated at 380° for 2 h to give
 52.5% **acrylic acid**.

L8 ANSWER 28 OF 28 CAPLUS COPYRIGHT 2005 ACS on STN

TI Catalysts for oxidation of propylene to acrolein or **acrylic acid**
 AN 1969:449291 CAPLUS
 DN 71:49291
 TI Catalysts for oxidation of propylene to acrolein or **acrylic acid**
 IN Kashiwabara, Hideyuki; Nakamura, Yasushi
 PA Asahi Electro-Chemical Co., Ltd.
 SO Jpn. Tokkyo Koho, 8 pp.
 CODEN: JAXXAD

DT Patent
 LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 43024645	B4	19681024	JP	19660418

AB In manufacturing acrolein (I) or **acrylic acid** (II) or a mixture of I and
 II by catalytic reaction in gaseous propylene (III) and O, catalytic
 systems containing **Mo**, **V**, **W**, **Te**, **Sb**,
Sn, or **Bi**, with O, were used. In an example, a solution of 72.0 parts MoO_3
 and 40.2 parts $\text{H}_2\text{WO}_4 \cdot \text{H}_2\text{O}$ in NH_4OH , an aqueous solution of 11.7 parts NH_4VO_3 , a
 solution of 70.1 parts $\text{SnCl}_4 \cdot 5\text{H}_2\text{O}$ in aqueous HCl and a solution of 3.2 parts
Te in HNO_3 were mixed and gradually evaporated to dryness with
 stirring vigorously on the water bath. The catalyst (between 6-20 mesh in
 a quartz tube) was heated in air stream at .apprx.470° 4 hrs. and
 at 358-470° for .apprx.2 hrs., then in O stream at 150-358°
 3 hrs. to yield a catalytic mixture (IV): atomic ratio given, **Mo**-
V-**W**-**Te**-**Sn** 5:1:1.5:0.5:2. A mixture of crude III (93% III,
 main impurities: **propane**, ethane), O and steam (mole ratio,
 III-O- H_2O 1:1.6:6) was introduced into a stainless-steel tube filled with
 IV at 450° under the atmospheric pressure at apparent contact time of 3
 sec. to yield II containing I, AcOH , and AcH yielded II; % conversion III-II =
 66.5%.

=>

=> logoff hold

COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
80.40	80.61

FULL ESTIMATED COST

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE	TOTAL
ENTRY	SESSION

CA SUBSCRIBER PRICE

-8.76

-8.76

SESSION WILL BE HELD FOR 60 MINUTES

STN INTERNATIONAL SESSION SUSPENDED AT 07:53:46 ON 11 AUG 2005